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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,520	12/27/2001	Byung Keun Lim	P-0315	9390
34610	7590	08/11/2005	EXAMINER	
FLESHNER & KIM, LLP			SAGAR, VIDYA S	
P.O. BOX 221200			ART UNIT	
CHANTILLY, VA 20153			PAPER NUMBER	

2666

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/026,520

Applicant(s)

LIM, BYUNG KEUN

Examiner

Vidya Sagar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Dec 28, 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date Sep 16, 2004
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### 1. ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 6,7, and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Jason Stuart Flynn (US 6,549, 522 B1).

Regarding claims 1 and 7; a hand-off notifying and controlling system and method are disclosed in Fig. 2. A module node (MN) that transmits a registration request message is anticipated by the element 6. A first foreign agent (FA) that provides a mobile Internet protocol (IP) service to the MN before a hand-off of the MN takes place is anticipated by the element 10. A second foreign agent (FA) that provides a mobile Internet protocol (IP) service to the MN before a hand-off of the MN takes place is anticipated by the element 11. A home agent (HA) that generates and transmits a registration release message to the first FA, upon receipt of the registration request from the MN sent via the seconds FA, when the hand-off takes place is anticipated by the element 7.

Regarding claims 6 and 11 Flynn teaches that Mobile IP supports multiple

simultaneous mobility bindings (column 3, lines 51-54) where multiple simultaneous mobility bindings are analogous to multiple care-of addresses of the claimed invention and that the Home Agent retains its existing list of mobility bindings when it receives a Registration Request containing the IP address of a new foreign agent which means the HA does not transmit a registration release message, if an IP address of the MN is a multiple care-of address where existing list of mobility bindings is the equivalent of multiple care-of addresses of the claimed invention.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jason Stuart Flynn (US 6,549, 522 B1) in view of, Sivananthan Chelliah (U.S. 5,915,220), in view of Atushi Inoue (U.S. 6,891,819 B1), further in view of Pete Mcann et al. (INTERNET DRAFT Title: draft-ietf-mobileip-sessionid-00.txt).

Regarding claims 2 and 12 the primary Flynn (US 6,549, 522 B1) teaches all of claim 1 but fails to teach the system and method wherein the second FA deletes prior registration information of the MN, stored in at least a visitor table. But the secondary

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Sivananthan Chelliah (U.S. 5,915,220) teaches a previously registered MSC deleting service profile from a visiting location register (Fig 3, element 303, Column 3, lines 17-23) where MSC is analogous to the Foreign Agent (FA) in the claimed invention.

Therefore it would have been obvious to one of ordinary skill in the art to combine deleting service profile from a VLR of Sivananthan to Byung Keun to be able to delete prior registration information of the Mobile Node (MN) stored in a visitor table.

Motivation being to reduce the bandwidth problem by deleting unnecessary user profile information.

Claims 3,4,8,9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jason Stuart Flynn (US 6,549, 522 B1) in view of Atushi Inoue (U.S. 6,891,819 B1).

Regarding claims 3 and 8, the primary Flynn (US 6,549, 522 B1) teaches all of claim 1 but fails to teach the system and method respectively wherein the registration release message has a data structure and type field value identical to the registration request message. But the secondary Atushi Inoue (U.S. 6,891,819 B1) teaches registration message structure and type field (Fig. 2). Therefore it would have been obvious to one of ordinary skill in the art to combine registration structure and type field of Inoue to Byung Keun. Motivation being to have control over the extensions field in the request message, which indirectly means control over the amounts of information to be carried within each datagram.

Regarding claims 4 and 9, the primary Flynn (US 6,549, 522 B1) teaches all of

claim 1 but fails to teach the system and method respectively wherein the registration release message has a type field set to identify a type of message; a life time field that sets an effective registration time of the MN; a home address field that sets an IP address of the MN; a home agent field that sets an IP address of HA; a care-of address field that sets an IP address of an ending point of a tunnel; and an identification field set to associate the registration request message and a registration reply message. But the secondary Atushi Inoue (U.S. 6,891,819 B1) teaches an exemplary format of a registration message (Fig. 2.) which addresses the above said method and system. Therefore it would have been obvious to one of ordinary skill in the art to combine registration structure and type field Inoue to Byung Keun's mobile hand-off communications system either by hardware, software or both. Motivation being to have an understanding and hence be able to improve the performance in terms of connectivity and security of the mobile communications.

Regarding claim 13, the primary Flynn (US 6,549, 522 B1) teaches all of claim 1, the secondary Sivananthan Chelliah (U.S. 5,915,220) teaches a previously registered MSC deleting service profile from a visiting location register. But Flynn and Sivananthan fail to teach the system and method respectively wherein the registration release message has a type field set to identify a type of message; a life time field that sets an effective registration time of the MN; a home address field that sets an IP address of the MN; a home agent field that sets an IP address of HA; a care-of address field that sets an IP address of an ending point of a tunnel; and an identification field set to associate the registration request message

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and a registration reply message. But the secondary Atushi Inoue (U.S. 6,891,819 B1) teaches an exemplary format of a registration message (Fig. 2.), which addresses the above said method and system. Therefore it would have been obvious to one of ordinary skill in the art to combine registration structure and type field Inoue to Byung Keun's mobile hand-off communications system. Motivation being to have an understanding and hence be able to improve the performance in terms of connectivity and security of the mobile communications.

Regarding claims 5, and 10 primary Flynn (US 6,549, 522 B1) teaches all of claim 1 but fails to teach wherein the HA sets the lifetime field of the registration release message to the value '0'. But the secondary Pete Mcann et al. (INTERNET DRAFT Title: draft-ietf-mobileip-sessionid-00.txt) teaches the MN setting the lifetime field of the registration release message to the value '0' via HA(Section 5, paragraph 2, Section 6, "Address Management", paragraph 4). Therefore it would have been obvious to one of ordinary skill in the art to the setting of lifetime value of Mcann to Byung Keun mobile hand-off system by giving the MN an ability to change the value of lifetime counter. Motivation being to the ability to delete old and unwanted mobile users' registration specifications.

Regarding claim 14 primary Flynn (US 6,549, 522 B1) teaches all of claim 1, the secondary Sivananthan Chelliah (U.S. 5,915,220) teaches a previously registered MSC deleting service profile from a visiting location register. Flynn and Sivananthan fail to teach the method wherein the HA sets the lifetime field of the registration release message to the value '0'. But the secondary Pete Mcann et al. (INTERNET

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DRAFT Title: draft-ietf-mobileip-sessionid-00.txt) teaches the MN setting the lifetime field of the registration release message to the value '0' via HA(Section 5, paragraph 2, Section 6, "Address Management", paragraph 4). Therefore it would have been obvious to one of ordinary skill in the art to the setting of lifetime value of Mcann to Byung Keun mobile hand-off system by giving the MN an ability to change the value of lifetime counter. Motivation being to the ability to delete old and unwanted mobile users' registration specifications.

Regarding claim 15 primary Flynn (US 6,549, 522 B1) teaches HA does not transmit the registration release message, if an internet protocol (IP) address of the MN is a multiple care-of-address (Col3, lines 51-54)

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vidya Sagar whose telephone number is (571) 272-8196. The examiner can normally be reached on Monday thru Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vidya Sagar  
Examiner  
Art Unit 2666



DANGTON  
PRIMARY EXAMINER